

EUROPEAN TRAVEL NOTES

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I.

IN the preparation of travel notes it seems superfluous to mention that the writer is dealing with what he has had the good fortune of seeing, without reference to the other good work done by others that he had the misfortune of not seeing.

One of the objects of travel notes should be to bring about a clearer understanding and a closer relationship between the medical men of one country and those of another. By comparison, we see how perfectly or imperfectly we do our work, and by travel we leave our environment and thereby develop a perspective which enables us to appreciate the values which are lost through the closeness of every-day contact.

It is a great pleasure for me to speak of the cordial reception accorded medical men by their co-workers abroad, and to improve this occasion in conveying to them my sincerest thanks for the many courtesies extended to me.

Landing in Liverpool, it is entirely natural to gravitate into the presence of Mr. Robert Jones. Mr. Jones is one of the exceptional orthopedic surgeons that has developed to the highest degree all three divisions of his work—the pathology and diagnosis, the treatment, and, lastly, the mechanics of orthopedic surgery. The rapidity with which he sums up a case and the clearness with which he explains the pathology and treatment is, indeed, marvelous. One sees in Mr. Jones' clinic patients from South Africa, as well as Liverpool, or any other part, far or near.

It is not possible to come in personal contact with

Sir Victor Horsley without having a more accurate view of brain surgery than one had before the meeting. Although a master in this department, he spends much of his time in his laboratory at the University College, working out doubtful problems bearing upon the surgery of the central nervous system. It was extremely interesting to watch the production and effect of lesions of the optic thalamus, and to see the ingenious method of producing a localized lesion in deeper portions of the brain without injury to other and overlying parts of the brain.

Sir Victor believes that trifacial neuralgia is a form of neuritis, and that the Gasserian ganglion should not be operated upon unless two or more branches of the nerve become involved.

The first division, although rarely affected, is nevertheless not exempt.

When choked disc is present upon one side or more marked upon one side than the other, the side upon which the papilloedema occurs, or is most marked, represents the side upon which the tumor is located. Decompression is practiced preferably over the seat of the tumor, unless this happened to be in the motor area, in which event decompression will be followed sooner or later by paralysis. If decompression can be made over the seat of the tumor, the tendency is for the tumor developing along the lines of least resistance to make its way to or near the surface.

One of the most interesting surgeons at present upon the English horizon is Mr. W. Arbuthnot Lane. Mr. Lane became known to us first through what was formerly considered a radical procedure, but is now admitted to be sound surgical judgment, namely, the operation for cleft palate, as soon after the birth of the child as possible, a few hours, or at most a few days after birth. Then his views upon the operative treatment of fractures startled the surgical world, resulting in the wholesome readjustment of this division of surgery. Now, Mr. Lane is again before us pleading in behalf of his views upon the autointoxication that results from an intestinal stasis, and advocating for the relief of this condition, either the re-

moval of the entire colon from ileum to rectum, or the short-circuiting of the same. With Mr. Lane this is not an untried procedure, his first operation having been performed in 1901.

The task, as Mr. Lane puts it, which our drainage system has to do, is to "transmit its contents at such a rate that they shall not have time to undergo such a degree of decomposition as will produce harm to the individual by the absorption of the products."

As the result of assuming the upright position, there is a constant tendency for especially the hollow viscera to sag, and since we maintain this upright position for about sixteen or seventeen hours out of the twenty-four, it is self-evident that time and gravity conspire to sooner or later develop a visceroptosis to a greater or less degree. Nature endeavors to overcome this constant tendency by the development of lines of resistance. These lines of resistance are represented by a reinforcement of certain portions of the normal peritoneal reflections. As the result of changes in these peritoneal reflections we have formed what might be termed "ligaments," which are strong enough to resist at certain points the descent of more particularly the hollow viscera. In consequence of this resistance at given points, we have through augulation or torsion, or sometimes through both, an interference with the lumen of the organ and the propulsion of its contents.

The first point of resistance extends from the pylorus to the under surface of the liver, in front of the transverse fissure along the cystic duct and gall-bladder. This, he contends, though not a thick ligament, is, however, strong enough to offer a definite resistance to the downward displacement of the pylorus, when the stomach sags from distention, and the pull exerted upon it by the dragging of a loaded transverse colon. This definite resistance at this point when the stomach sags results in a kink and occlusion of the pylorus. The interference with the drainage of the stomach chemically alters its contents which in time produces an ulcer.

The second line of resistance is at the duodeno-

jejunal angle. From this interference there occurs in the duodenum a distention which is confined to that part of the bowel which is free and covered by peritoneum. The passage of food into the duodenum under these conditions occasions pain which lasts until the patient assumes the supine position, which allows the loop to fall into the left loin and relieve the kink or the introduction of food into the stomach, which occasions reflex contractions sufficiently vigorous to overcome the obstruction.

The duodenal ulcer gets well rapidly, because the position overcomes entirely the kink in the bowel. The gastric ulcer gets well slowly, because the strain is but partly relieved.

The cure of the duodenal ulcer through gastroenterostomy is not dependent upon the formation of a communication between the stomach and the jejunum, but to the fastening of the bowel in such a position as will overcome the kink. This can be accomplished as readily through an anterior as through a posterior gastroenterostomy, the communication being purely secondary, and not a real factor in the cure of the ulcer, so long as the mobile segment of the jejunum is so fixed that it cannot kink upon the fixed duodenum.

The third point of resistance is at the termination of the ileum. The tendency for the cecum to drop into the pelvis is resisted by bands upon the external surface of the cecum and ascending colon, the lowest of these band supporting the appendix, frequently kinking it, producing symptoms of appendicitis. Upon the inner side the strain falls upon the ileum and the posterior layer of its mesentery, producing a kink in the ileum at two planes, one being vertical and angular and the other due to torsion.

The fourth points of resistance are at the hepatic and splenic flexures. The drag at these points converts the rounded hepatic and splenic flexure into short kinks, that through the additional irritations due to this kinking, become favorable points for the development of malignant growths.

The fifth point of resistance is at the sigmoid, through lines upon its external surface, as in the case

of the cecum and ascending colon upon the right side. The resistance to the passage of material at this point is illustrated by the occurrence of diverticulitis and the development of malignant processes.

In a number of cases the development of peritoneal bands is not uniform, and through this lack of uniformity an overdistention of the loop results in the formation of the obstruction known as volvulus.

As the result of this intestinal stasis, we have a definite line of symptoms, prominent among which are headaches, severe and frequent; attacks of nausea, frequently severe; loss of appetite almost constantly; loss of weight; markedly cold hands and feet, indicative of defective circulation; mental apathy; constipation, although the reverse is not inconsistent with the stasis, as irritation may result from a condition of stasis, occasioning one or more movements a day; a constant foul taste in the mouth, attacks of abdominal distention, general muscular pain, and the staining of the skin and degenerative changes in the breast.

As to how much of these views and this treatment will ultimately find permanent adoption, time alone will answer. I am reasonably sure, however, that more of it will eventually be adopted than its first reception, which in all likelihood will not be too cordial, would indicate. If we reflect, the soundness of the proposition will become evident. How many of us realize how unreasonable it is to expect twenty-odd feet of small intestine to be successfully supported by a peritoneal reflection that has an attachment of scarcely five inches? (Vertebral border of the mesentery.)

The astonishing feature is not that there is a tendency to prolapse, but that it remains up as well as it does. Consider for a moment the conditions as they exist in the quadruped, where the intestines, instead of hanging by a five-inch peritoneal attachment, rest upon the abdominal walls as though they were swung in a hammock; the difficulty of propelling the material against gravity up the ascending colon and then pushing it along the transverse colon as it exists in the human. When the animal has eaten a heavy meal it does not indulge in strenuous or fatiguing occupations,

but quietly lies down and rests the viscera indirectly upon the ground; consequently we see no visceroptosis and inguinal hernia in lower animals, the reverse of which must be said about the human because of the upright position.

After all, when we see the transverse colon trying to find its way into the pelvis, would it be unreasonable to suspect that the conditions are endeavoring to adjust themselves to the upright position by trying to lessen the height of the arch represented by the ascending, transverse and descending colon, and thus aid the present, and at times difficult, drainage problem? And is not Mr. Lane perhaps anticipating nature with his procedure?

II.

IN passing from England to the continent it is quite natural to drift first into the French capital. Paris presents in medicine, as it does in almost every other department, a distinct individuality. Unfortunately, the limited space makes it impossible to do more than merely touch upon a few of the many interesting men and events.

We saw, perhaps, more of Tuffier's work than of any other, and in leaving the metropolis we felt that we were parting with a distinguished Frenchman and an accomplished surgeon.

Tuffier was enthusiastic in his efforts in the transplantation of organs and tissues. In doing an amputation, the tendons were removed from the amputated extremity and were used as a substitute for catgut in the same, or in another subject. In fact, this conservation of material included not only the tendons, but skin and bone, as well as joints.

This material is preserved in cold storage and used weeks after the removal. A skiagraph was shown of a case in which a knee joint was successfully transplanted months before with practically perfect functional results. Even the lipomas were not wasted. They were used to fill out cavities in different regions of the body. An ingenious use of a lipoma was made

by Tuffier in the obliteration of a cavity in a lung. The ribs were resected without opening the pleural cavity, and the cavity obliterated by crowding the pleura inwards, using the lipoma, or, in the absence of a lipoma, a mass of omentum, as a buttress to invert the pleura. Ovarian tissue is transplanted between the rectus and the peritoneum of the same on another subject, preserving the internal secretion, and preventing the undesirable effects of a premature menopause.

Some excellent results were shown from the use of radium, especially in vascular growths, such as angiosarcomas. The tube containing the radium was allowed to remain in the growth for twenty-four hours, or if it was a large growth two or three tubes were introduced at the same time.

In Europe generally chloroform is, as a rule, the anesthetic of choice. Here and there we find ether employed. Its employment seems to be on the increase, but slowly. Largely through Germany the Roth-Drager apparatus finds favor, its advantages being that the amount of an anesthetic given can be graduated, producing greater uniformity in its administration. In this way better results are obtained by less experienced anesthetists.

By means of this apparatus ether alone can be given or a mixture of ether and chloroform, or a combination of ether, chloroform and oxygen, or the oxygen can be replaced with nitrous oxide alone, taking the place of the other anesthetics.

At the Hotel Dieu, in Lyons, they proudly boasted of the fact that they were the immediate followers of our Boston in the adoption of ether.

In Paris I was told that chloroform was preferred, because ether was too frequently followed by pulmonary disturbances. This no doubt is entirely correct, but perhaps the fault is not so much with the ether as with the temperature of the operating rooms and hospitals.

Every other devotee has found by experience that prolonged ether anesthesia and a cold room is a dangerous combination, and the heating in England and

Europe is usually below what we consider adequate.

Strides have been made with local anesthesia, especially in Germany, and in Bier's clinic one sees local anesthesia practiced to a very high degree of perfection.

The French are masters in exposing the field of operation in abdominal surgery. Faure did a Wertheim operation for uterine carcinoma, in which he employed his set of retractors to expose the field. The Faure retractor is an enlargement upon the Doyen, and through the Faure retraction is effected upon all four sides. Although the work is done through a large incision, the abdominal organs are carefully protected by gauze held in place through the blades of the retractors. This enables the operator to obtain the best exposure without calling upon an assistant for the retraction of the wound. The Wertheim operation, which, by the way, is but an European edition of the good work done by Emil Ries, of Chicago, and John G. Clark, of Philadelphia, both prior to Wertheim, I believe, is practiced extensively in Europe, but not always with the same skill and thoroughness.

In Berlin, Prof. Carl Franz at the Charité very skillfully did a Wertheim and a Cæsarean section upon the same subject, delivering a full-term living child. Franz has also devised a four-blade retractor for this and other abdominal operations. In his technique he never touches structures with his fingers. Although wearing rubber gloves, everything is picked up with forceps.

The entire operation, Wertheim and Cæsarean section, occupied about an hour, and the operator demonstrated to the bystanders the ureter, the uterine and iliac vessels, the obturator nerve and the fat in which the lymphatics are contained.

Any one desiring to study medicine in France will find Lyons in some respects more desirable perhaps than Paris. There is an abundance of material and opportunity. Everything is concentrated into a small area, and there are not as many attractions as one finds in the metropolis that serve to divert the student's attention. Lyons has furnished more than an average quota of famous men, not only in medicine but in other

departments of public life. The brilliant young Frenchman, Alexis Carrel, at the Rockefeller Institute, whom we are trying to claim by adoption, is a native of Lyons and was an interne at the Hôtel Dieu.

Through the kindness of Dr. Paul Courmont I was given an excellent opportunity to see the medical side of Lyons. The Hôtel Dieu is said to be the oldest hospital in France, its foundation dating back to the sixth century, and it has over 1,000 beds. Although a new hospital has already been planned, and will without delay be erected about three miles from the present site, the old hospital is still an imposing and substantial structure. The dome, which represents an admirable specimen of architecture, is the work of Souffle and Mansard, familiar names to students of architecture.

Jaboulay, who was formerly Testut's chief, and who stands high as an anatomist and physiologist as well as a deft surgeon, informed me at the Hôtel Dieu that in certain cases of epilepsy and goitre he still removes the cervical sympathetic ganglia. Testut enthusiastically opened his anatomical museum in the University building, and his chief exhibited some young rabbits that had been exposed to the X-ray for thirty minutes, with distinct disturbance in the form of shortening through an interference of the growth in the extremity exposed.

The French use rubber gloves that we predict will go far towards replacing the more or less unsafe and unsatisfactory thin gloves commonly used on this side of the Atlantic. They have been adopted by some of the English surgeons, and while, like all rubber goods, their life is limited, and they have the appearance of clumsiness, it is wonderful how comfortable they are and how easily they enable one to carry out the most delicate manipulation. They are made of a heavy grade of white rubber with short, wide fingers except at the tips, and especial freedom about the thumbs. They extend upward half way to the elbow. Dr. Paul Lecene, of Paris, who kindly demonstrated their advantages, gave me the address of E. Galante, 75 Boulevard du Montparnasse, Paris, as the

best place to secure them. He remarked that the life of a glove was about thirty or forty operations.

In Madrid we visited the San Carlos Hospital, where the grand old man of Spain, Ramon y Cajal, does part of his experimental work. Ramon y Cajal is a biologist and also has the chair in pathology in the University of Madrid. He has three laboratories. Some wonderful slides of the histology of the central nervous system were shown by his chief. He was holding an examination in one of the antique halls of the old San Carlos Hospital, and to an observer he appeared to possess all the simplicity of a great man. In Barcelona they have just completed a new hospital. We were shown some work by Cardenal at one of the older hospitals. Barcelona, however, is, always has been, and probably will endeavor to remain, somewhat distinct and apart from the rest of Spain in everything she can.

Good work in abundance and variety can always be seen in Köcher's clinic.

The students in the medical department were about equally divided between men and women, and Professor Köcher informed me that at one time the women were numerically stronger than the men. Among the women many Russian faces are noticeable. The goitre question almost divides the attention of Europe with salvarsan. Köcher obtained the Nobel prize in 1909 for his labors upon the goitre question ("Ueber Krankheitserscheinungen bei Schilddruesen erkrankungen geringen grades," Theodore Köcher, Stockholm, Nobel Prize, 1909). They (father and son), were earnest in their warnings against the use of iodine or iodine preparations in this trouble. Iodine so influences the thyroidal poison that Basedow symptoms appear, and this is of such common occurrence that they recognize a distinct class which goes by the name of Iodine Basedow's disease. These cases usually, but not always, improve after the iodine is discontinued. They pointed to the significant fact that there is in some a primary improvement, with a secondary unfavorable effect that leads many to believe that not enough iodine has been given, and through this mis-

taken conclusion do considerable harm before the real error is discovered.

The last chapter on the goitre question has yet to be written. In Wilm's clinic in Heidelberg some work worthy of attention was shown. Specimens and photographs of goitres were exhibited that were produced in rats by feeding these animals with water from so-called goitre wells in Switzerland. After regularly producing goitres by feeding the water, another group of rats were given the water after it had been exposed to a certain temperature, still producing the goitre, but not to the same degree. This was repeated with a third set with water that had been exposed to a still higher temperature with less enlargement, and in a fourth set where the temperature had further been increased, ceased to produce any enlargement. These experiments were briefly reported in the *Deutsche Medizinische Wochenschrift*, March 31, 1910, page 605, "Experimentelle Erzeugung und Ursache des Kropfes," von Prof. M. Wilms.

Wilms' former assistant, E. Bircher, has supplemented the work of his chief, so as to make a very strong case against the water, as perhaps the most important factor in the production of goitre.

The work of Bircher, "Zur Pathogenese der kretinischen Degeneration," Eugene Bircher, *Medizinischen Klinik*, 1908, Heft 6, seems to be an addition to that of H. Bircher (1885). The Birchers, together with others, including Virchow (1859), are inclined to the view that water in passing through certain strata becomes impregnated with a toxin, or a toxalbumen, or an organism, the result of changes that have occurred in these strata, and that are dependent upon marine remains that were imprisoned in these strata. It is common knowledge that the water from certain wells believed to be responsible for the great number of goitres is rendered harmless through boiling.

The Eppendorf Krankenhaus is the largest hospital in Germany, and although in the free city of Hamburg, the German Empire can well be proud of it and the excellent work that is done. Although not the only hospital in Hamburg, the St. George having a

capacity of about 1,900 patients, the Eppendorf has over 2,000 patients. Their working force is said to number 900, making over 3,000 persons, or a small city in itself. They keep in constant readiness 300 beds for a sudden demand that may be made upon them by some incoming steamer. It is the belief of many that the best X-ray work in the world is done at Eppendorf. Exposures of the heart and other movable organs are made in the tenth part of a second. The bladder, ureters and renal pelves are filled with collargol solution and skiagraphed with unusual sharpness. In fact, Hamburg is an opulent city, that does not believe in doing anything by halves.

Kümmel, the attending surgeon at Eppendorf, is still an ardent advocate of permitting his patients to get up the first, second or third day after the operation, and his herniotomies are no exception to this practice. In fact, they are generally up the next day, and, the weather permitting, outside on the second or third day. He claims to secure by this a stronger union, fewer pulmonary disturbances, less thrombosis and a much earlier return to their usefulness.

One of the greatest clinics in Europe is that of Geheimrath August Bier. This has always been a notable clinic. In the time of Von Bergmann it had the swing of a great place. It is the most cosmopolitan clinic in Europe, a veritable house of all nations, from the ubiquitous Jap, who is spread out in a thin layer all over Europe, if not the world, absorbing material for the awakened and arousing Orient, to the restless Westerner. At my former visits to this clinic a few years past it was either Von Bergmann or his assistant, Ledor, and now it is either Bier or Von Schmieden, and it is at present as it was in the past, a place where an abundance of good material and good work can always be seen; and if the chief is absent he is always ably represented by his assistant.

During my stay at the Bier clinic there was a wealth of stomach cases operated upon. The histories are accurately presented. They are given bismuth and carefully skiagraphed. The plates are arranged in an illuminated cabinet, making them clear to the entire

audience. The specimens are minutely examined in a gross and microscopic way; in fact, the cases are carefully presented from every angle. They do not share the same views upon ulcers and cancers taken by some of our American operators, at least not to the same degree. This holds good for England, as well as the continent. In fact, in London, Mr. Herbert J. Paterson, who has done some excellent work along the lines of gastric surgery, believes that a gastrojejunostomy will do as well whether the pylorus is open or not, and as to whether the stoma drains or not, although he insists that the stoma must remain open. He holds that the result is not dependent upon drainage, but upon physiological grounds. With the stoma open there is a diminished acidity, and this diminished acidity follows a gastrojejunostomy, irrespective of the location of the ulcer. The secretion of gastric juice, like that of bile and other juices, is due to a hormone.

Nearly all of the cases operated upon in the Bier clinic were about the middle period of life, and a notable feature to which there was no exception was that all noticed gastric symptoms for a period varying from four to eighteen or more years. All during this period had many intervals in which there was an apparent or relative freedom from symptoms, and some even increased in weight during these intervals.

The practical lesson that these cases taught was that the important point in gastric disturbance is the ability to differentiate between "getting cured" and "staying cured." They all got cured, and some many times, but none stayed cured. They were finally forced upon the surgeon after cancerous masses became evident. Serious operative procedures became necessary, which some naturally failed to survive, owing to delay.

Prof. Victor von Schmieden, the chief of the clinic, did the second stage of a rhinoplasty. The first stage consisted of chiseling off a portion of rib of the proper size. This was transplanted to the arm, and after the lapse of several weeks the new nose was created from a flap taken from the arm, the flap con-

taining the transplanted bone. This last stage was carried out under local anesthesia.

In Bier's clinic spinal analgesia is being practiced daily, together with local and general anesthesia. In fact, his practice bespeaks the sane view of not what anesthetic, but what form of anesthesia.

Through the kindness of Geheimrath Bier I witnessed the excision of a tongue under a local anesthesia in his private hospital. The patient was a man aged about sixty years, with a cancer of the tongue and a myocarditis that made the use of a general anesthetic inadvisable. Two weeks previous, as it is his custom to do in these cases, he cleared out the neck, also under a local anesthesia. In this preliminary operation the neck was entirely laid bare except the posterior part. An incision was made from one mastoid process to the other, with two counter incisions laterally, extending downward to the sternum. The two sterno-mastoid muscles were divided in the middle and turned up and down, thus exposing absolutely every possible gland in the neck. After the lapse of two weeks, with the wound completely healed, the second stage, or the actual removal of the neoplasm, was undertaken. Both inferior maxillary nerves were blocked and the region thoroughly infiltrated. The soft parts and lower jaw was divided in the middle line, the bone held apart, and the tongue excised. After the completion of the operation the lower jaw was reunited through wiring.

It seems incredible to say that an operation of such magnitude is possible under local anesthesia. The anesthesia was perfect. The patient did not display the least sign of pain or apprehension, which is all the more remarkable in view of this being his second ordeal. The operator remarked that he now removes the upper jaw, and does other major operations about the face under local anesthesia. In employing local anesthesia the patient is enabled to render a valuable assistance in keeping the throat clear of blood, making the preliminary ligation of the external carotid unnecessary.

This seemed the very pinnacle of local anesthesia,

and it was a pleasure for me to express my admiration
for such a masterly performance.

